

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| PPLICATION NO |). F | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|----------------------|------------|----------------------|---------------------|------------------|
| 09/079,678 | 9/079,678 05/15/1998 | | VERNON L. ALVAREZ | 1101-220 | 8606 |
| 20583 | 7590 | 07/13/2004 | | EXAMINER | |
| JONES D | | | TELLER, ROY R | | |
| 222 EAST 41ST ST NEW YORK, NY 10017 | | | | ART UNIT | PAPER NUMBER |
| | | | | 1654 | |

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | · · · · · · · · · · · · · · · · · · · | T 4 | Annliantion No | | | | | |
|---|---|--|--|---|--------------|--|--|--|
| | | | Application No. | Applicant(s) | | | | |
| Office Action Server | | | 09/079,678 ALVAREZ ET AL. | | | | | |
| | Office Action Summary | E | xaminer | Art Unit | | | | |
| | The MAILING DATE AND | | Roy Teller | 1654 | | | | |
| Period f | The MAILING DATE of this commun or Reply | nication appea | rs on the cover sheet | with the correspondence add | dress | | | |
| THE - Extended - If th - If No - Fail Any | MORTENED STATUTORY PERIOD IN MAILING DATE OF THIS COMMUN ensions of time may be available under the provision of SIX (6) MONTHS from the mailing date of this come period for reply specified above is less than thirty (0 period for reply is specified above, the maximum is ure to reply within the set or extended period for reply reply received by the Office later than three months and patent term adjustment. See 37 CFR 1.704(b). | IICATION. s of 37 CFR 1.136(a munication. 30) days, a reply wit tatutory period will a y will, by statute, ca | a). In no event, however, may thin the statutory minimum of apply and will expire SIX (6) N use the application to become | a reply be timely filed thirty (30) days will be considered timely. SONTHS from the mailing date of this considered timely. | mmunication. | | | |
| Status | | | | | | | | |
| 1) 🛛 | Responsive to communication(s) file | ed on <i>08 July</i> | 2003. | | | | | |
| | | | ction is non-final. | | | | | |
| 3)[| Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | | |
| | closed in accordance with the pract | ice under <i>Ex µ</i> | parte Quayle, 1935 C | .D. 11, 453 O.G. 213. | | | | |
| Disposit | ion of Claims | | | | | | | |
| 4)⊠ | Claim(s) <u>75,109,110,117-128,135-1</u> | 42 and 149-1 | 55 is/are pending in t | he application. | | | | |
| | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | | |
| · | Claim(s) is/are allowed. | is/are allowed. | | | | | | |
| 6)⊠ | | | | | | | | |
| | 7) Claim(s) <u>110, 128, and 142</u> is/are objected to. | | | | | | | |
| 8)[_] | Claim(s) are subject to restrict | ction and/or el | ection requirement. | | | | | |
| Applicat | ion Papers | | | | | | | |
| 9)[| The specification is objected to by the | e Examiner. | | | | | | |
| 10)[| The drawing(s) filed on is/are | : a)∏ accept | ed or b)⊡ objected t | o by the Examiner. | | | | |
| | Applicant may not request that any obje | ction to the dra | wing(s) be held in abey | ance. See 37 CFR 1.85(a). | | | | |
| . — | Replacement drawing sheet(s) including | | | | | | | |
| 11)[| The oath or declaration is objected to | by the Exam | iner. Note the attach | ed Office Action or form PTC |)-152. | | | |
| Priority ι | ınder 35 U.S.C. § 119 | | | | | | | |
| 12) | Acknowledgment is made of a claim | for foreign pri | ority under 35 U.S.C. | § 119(a)-(d) or (f). | | | | |
| | ☐ All b)☐ Some * c)☐ None of: | J | , | 3 (2) (2) 0. (.). | | | | |
| | 1. Certified copies of the priority | documents ha | ave been received. | | | | | |
| | 2. Certified copies of the priority | | | Application No | | | | |
| | $3.\square$ Copies of the certified copies | of the priority | documents have bee | n received in this National S | tage | | | |
| | application from the Internatio | nal Bureau (P | CT Rule 17.2(a)). | | | | | |
| * 5 | See the attached detailed Office actio | n for a list of t | he certified copies no | ot received. | | | | |
| A.u L - | w-1 | | | | | | | |
| Attachmen | t(s) e of References Cited (PTO-892) | | ∆ □ 1=4== 1 | (Promone (PTO 442) | | | | |
| | e of References Cited (P1O-892) e of Draftsperson's Patent Drawing Review (P | TO-948) | | Summary (PTO-413) o(s)/Mail Date | | | | |
| 3) 🔲 Inforr | mation Disclosure Statement(s) (PTO-1449 or | | 5) 🔲 Notice of | Informal Patent Application (PTO-1 | 152) | | | |
| Pape | r No(s)/Mail Date | | 6) | · | | | | |

Application/Control Number: 09/079,678

Art Unit: 1654

DETAILED ACTION

This office action is in response to the response, received 7/8/03, in which applicant amended claims 75, 109, 110, 119-125, 127-128, 135-142, and 149-155, and cancelled claims 11-116, 129-134, and 143-148. Applicant's response has been fully considered.

Claims 75, 109-110, 117-128, 135-142, and 149-155 are pending.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 75 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 75 recites "... (i) a first protein...". This is unclear because there is no corresponding (ii). The examiner suggests -- and (ii) a pharmaceutically acceptable carrier. --.

Claim 75 recites "...being a drug...". This is unclear. The examiner suggests -- wherein said second protein acts as a drug --.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

Application/Control Number: 09/079,678

Art Unit: 1654

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 75, 109, 127, 141, and 155 are rejected under 35 USC 112, first paragraph, because the specification, while being enabling for SEQ ID NO: 51, a 44 amino acid sequence, does not reasonably provide enablement for 6 contiguous amino acids of the amino acid sequence of SEQ ID NO:51. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

In this regard, the application disclosure and claims have been compared per the factors indicated in the decision *In re Wands*, 8 USPQ2d 1400 (Fed. Cir., 1988) as to undue experimentation. The factors include:

- 1) the nature of the invention;
- 2) the breadth of the claims;
- 3) the predictability or unpredictability of the art
- 4) the amount of direction or guidance presented;
- 5) the presence or absence of working examples;
- 6) the quantity of experimentation necessary;
- 7) the state of the prior art; and,
- 8) the relative skill of those skilled in the art;

Each factor is addressed below on the basis of comparison of the disclosure, the claims and the state of the prior art in the assessment of undue experimentation.

The claimed invention is drawn to a method of delivering a drug to a subject comprising administering to the subject a therapeutically effective amount of a pharmaceutical composition comprising a therapeutically effective amount of a nucleic acid encoding a

Application/Control Number: 09/079,678 Page 4

Art Unit: 1654

chimeric protein comprising a first protein comprising 6 contiguous amino acids of the amino acid sequence of SEQ ID NO: 51, said contiguous amino acids being capable of specifically binding to the gastro-intestinal receptor HPT1 (SEQ ID NO:178), said first protein being fused via a covalent bond to a second protein being a drug and a pharmaceutically acceptable carrier.

In consideration of these factors, it is apparent that there is undue experimentation because of a variability in prediction of outcome that is not addressed by the present application.

Absent factual data to the contrary, the amount and level of experimentation needed is undue to practice the invention as claimed.

Others skilled in the art would be unable to practice the invention as claimed without undue experimentation of which 6 amino acids out of the 44 amino acids of SEQ ID NO:51 to use, with a reasonable expectation of success, other than using SEQ ID NO:51 itself.

All other claims depend directly or indirectly from rejected claims and are, therefore, also rejected under 35 USC 112, first paragraph for the reasons set forth above.

Claim Objections

Claims 110, 128, and 142 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Application/Control Number: 09/079,678

Art Unit: 1654

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roy Teller whose telephone number is 571-272-0971. The examiner can normally be reached on Monday-Friday from 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bruce Campell, can be reached on 571-272-0974. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RT 1654 7/9/04

> CHRISTOPHER R. TATE PRIMARY EXAMINER

Page 5